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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,315	01/17/2002	Cesar-Emilio Zertuche-Rodriguez	205,289	9220

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EXAMINER


ANTHONY, JOSEPH DAVID

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/053,315	ZERTUCHE-RODRIGUEZ ET AL.	
	Examiner	Art Unit	
	Joseph D. Anthony	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 7-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 1 is indefinite for a number of reasons which are as followed:

1) The claim fails to list the units of measurements (e.g. by weight or by volume) for the claimed magnesium hydroxide component, the water component, the chloride content, the calcium content, the anionic polyelectrolyte, and the adherent component. (Applicant is reminded not to add new matter when trying to fix these problems).

2) When the claimed percentages are totaled up they exceed 100%, which is impossible. As an example, the claim is limited to where the solids content of the suspension is from "about 51% to 61%" and the water content is from "about 39% to 49%". The magnesium hydroxide content is claimed to be almost all of said solids content of the suspension since it is listed at "about 50% to 60%".

How is it thus possible for the anionic polyelectrolyte to have a concentration of "at least 25%, in an amount of about 0.5 to about 2.5% by weight on a dry basis"? The exact same problem is found in regards to the "adherent compound".

Thus if the anionic polyelectrolyte is present on a dry basis of 2.5% and the

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adherent compound is present on a dry basis of 6% this is a total solids amount of 8.5% which when added to the magnesium hydroxide maximum solid content of 60% would give a total solids content of 68.5% which is not only outside of applicant's claimed total solids content of "about 51% to 61%" but does not even include the solid content of calcium and chloride.

3) The metes and bounds of the "adherent compound" is unknown and is thus indefinite. Nowhere in applicant's specification does applicant define what is meant by an "adherent compound". The term "adherent compound" is not common in the art since none of the examiner cited prior-art references that deal with magnesium hydroxide suspension have any disclosure to "adherent compounds". Applicant in fact only gave one example of an "adherent compound" and that is a "styrene-acrylic emulsion", see page 13, lines 3-8 of the specification and claim 6. As such, only claim 6 is deemed to be definite in regards to the "adherent compound".

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collins et al. U.S. Patent Number 4,412,844 in view of Zertuche-Rodrigues et al. U.S. patent Number 5,811,069.

Collins et al discloses stable oil-dispersible magnesium hydroxide aqueous slurries comprising: A) 20-70% magnesium hydroxide having a particle size of 50 to 1.0 microns, preferably about 30-2 micron, see abstract and column 2, lines 41-59, B) 79-29% water, C) 1.0-8.0% of a water-in-oil emulsifying agent having an HLB value of 2 to11, and D) 0.1-6% of a water soluble water in-oil emulsifying agent having an HLB of from 10 to 40. The viscosity of said dispersion is from 100-5000 cps. Disclosed examples of component D) are polymeric materials such as acrylic acid-acrylate copolymers, see column 3, lines 40-54.

Collins et al. differs from applicant's claimed invention in the following ways: 1) there is no direct teaching (i.e. by way of an example) to a slurry composition that contains all of applicant's claimed components that is within applicant's claimed pH range of 10.5 to 12, 2) there is no direct disclosure to applicant's particularly claimed solids particle size ranges as set forth in claims 3 and 5, and 3) there is no direct disclosure to applicant's claimed styrene-acrylic emulsion adherent component of claim 6.

Zertuche-Rodrigues et al. discloses long-term stabilized magnesium hydroxide suspensions that are identical to applicant's claimed suspensions

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except that the viscosity is lower than claimed by applicant, and there is no disclosure of an adherent compound.

It would have been obvious to one having ordinary skill in the art to use the broad disclosure of Collins et al as motivation to actually make magnesium hydroxide slurry that contained all of applicant's claimed components within applicant's claimed pH range. It should be pointed out that the base magnesium hydroxide slurry used by Collins et al was commercially available under the name MHT-60 which had a pH of 10.5-10.7, see column 2, lines 13-40, which established that such pH ranges are well known in the art. Further support on the obviousness of applicant's claimed pH range is found in the secondary reference to Zertuche-Rodrigues et al. which direct teaches that stable magnesium hydroxide suspension are known to have a pH within the range of 10.5 to 12, see claim 1.

It would also have been obvious to one having ordinary skill in the art to use the disclosure of the secondary reference to Zertuche-Rodrigues et al. as motivation to make a magnesium hydroxide slurry accordingly to Collins et al that had a total particle size distribution as claimed by applicant's claims 3 and 5 since such a particle size distribution is directly taught by Zertuche-Rodrigues et al. in claims 3 and 5.

Finally, applicant's claimed styrene-acrylic emulsion, as the adherent component of claim 6, is deemed to fall within the generic disclosure of Collins et al components C) and/or D). It is also noted that applicant's specification has no

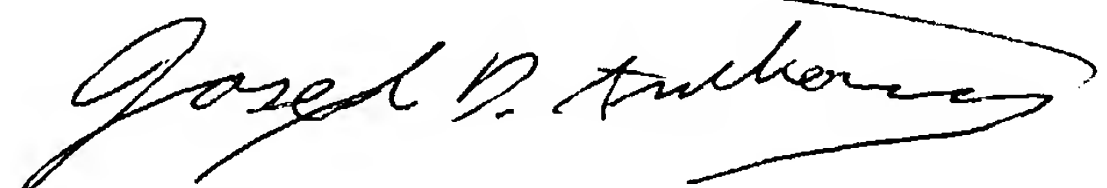
showing of any superior and/or unexpected results that may result when a styrene-acrylic emulsion is used as the adherent component in magnesium hydroxide suspensions.

Prior-Art Cited But Not Applied

5. Any prior-art reference which is cited on FORM PTO-892 but not applied, is cited only to show the general state of the prior-art at the time of applicant's invention.

Examiner Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. This examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 6:30 p.m. in the eastern time zone. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The centralized FAX machine number is (703) 872-9306. All other papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner.



Joseph D. Anthony
Primary Patent Examiner
Art Unit 1714

2/29/04